



## Press Release

National Institute of Environmental Health Sciences

National Institutes of Health

**EMBARGOED UNTIL**  
**Noon EDT, Tuesday, June 15, 1999**  
**NIEHS PR #9-99**

**NIEHS Contact:**  
**Bill Grigg, (301) 402-3378**  
**Tom Hawkins, (919) 541-1402**

### **Environmental Health Institute Report Concludes Evidence is 'Weak' that EMF's Cause Cancer**

#### **En Espanol\***

After six years of accelerated, Congressionally mandated research, the **National Institute of Environmental Health Sciences** today announced it has concluded that the evidence for a risk of cancer and other human disease from the electric and magnetic fields (EMF) around power lines is "weak."

NIEHS' review and analysis of the existing data came in a report to **Congress**, released today. The report applies to the extremely low frequency electric and magnetic fields surrounding both the big power lines that distribute power and the smaller but closer electric lines in homes and appliances.

While sections of the report say EMF exposure "cannot be recognized as entirely safe," the report concludes: "The NIEHS believes that the probability that EMF exposure is truly a health hazard is currently small. The weak epidemiological associations and lack of any laboratory support for these associations provide only marginal scientific support that exposure to this agent is causing any degree of harm."

Research continues on some "lingering concerns," the report says, and efforts to reduce exposures should continue.

NIEHS said that the "strongest evidence" for health effects comes from statistical associations observed in human populations with childhood leukemia and chronic lymphocytic leukemia in occupationally exposed adults such as electric utility workers, machinists and welders. "While the support from individual studies is weak," according to the report, "these epidemiological studies demonstrate, for some methods of measuring exposure, a fairly consistent pattern of a small, increased risk with increasing exposure that is somewhat weaker for chronic lymphocytic leukemia than for childhood leukemia."

However, laboratory studies and investigations of basic biological function do not support these epidemiological associations, according to the report. It says, "Virtually all of the laboratory evidence in animals and humans and most of the mechanistic studies in cells fail to support a causal [cause and effect] relationship."

NIEHS Director **Kenneth Olden, Ph.D.**, said, "The lack of consistent, positive findings in animal or mechanistic studies weakens the belief that this association is actually due to EMF, but it cannot completely discount the epidemiological findings. For that reason, and because virtually everyone in the United States uses electricity and therefore is routinely exposed to EMF, efforts to encourage reductions in exposure should continue. For example, industry should continue efforts to alter large transmission lines to reduce their

fields and localities should enforce electrical codes to avoid wiring errors that can produce higher fields." An interagency committee established by the President will make a subsequent report to Congress about the findings of this report and whether any remedial actions are needed to minimize exposures.

Dr. Olden said NIEHS would continue to support some research on EMF, though not at the high levels Congress provided in special legislation and appropriations.

The NIEHS report follows a six-year research program and a two-year review by the institute and by outside scientists. For the effort, Congress appropriated \$23 million that the electrical industry matched. The industry had no control over what research was conducted. The funds were administered by the **Department of Energy** and a portion was transferred to NIEHS, targeted for health effects research. NIEHS also added \$14 million of its own appropriated funds to support additional research. The total expenditure was about \$60 million.

The studies reviewed and conducted by NIEHS and its grantees focused on the possibility of a link to cancer - a reaction to a leukemia study in Denver, Colo., in 1979, and to subsequent attempts to duplicate or refute it in Denver and elsewhere. But the report said NIEHS also found inadequate evidence of any link to such non-cancer diseases as Alzheimer's, depression and birth defects. Christopher Portier, Ph.D., the associate director of the **Environmental Toxicology Program** at NIEHS who coordinated the evaluation effort, said, "This risk assessment gains strength and reliability from the conduct of extensive new research focused to support the evaluation and through obtaining the opinion of hundreds of scientists who participated in the evaluation. The novel methods used in this risk assessment can serve as a blueprint for resolving other difficult issues."

To assist NIEHS in reaching its conclusions, several panels of scientists reviewed the data in open, public hearings. A major panel of scientists - many of them EMF researchers - was assembled in a suburb of Minneapolis, Minn., last June to advise NIEHS. The panel rejected EMF as a "known" or proven, or even "probable" carcinogen but a majority of the panel said a role in cancer could not be ruled out and so it should be regarded as "possible" carcinogen. The NIEHS report today also recommends that the fields continue to be recognized as a "possible" cancer hazard, but emphasizes the weakness of the data and the low risk that may be involved. The NIEHS report says the evidence does not seem to meet the standard for listing as a known or even "anticipated" human carcinogen in the National Toxicology Program's **Report on Carcinogens**.

NIEHS is one of the **National Institutes of Health**. NIEHS' headquarters and laboratories in **Research Triangle Park, N.C.**, are also the headquarters of the **National Toxicology Program**, and they have the same director.

####

The report may be found on the Internet via [www.niehs.nih.gov/emfrapid/](http://www.niehs.nih.gov/emfrapid/) at noon EDT June 15, 1999. Printed copies of the report can be ordered by calling (919) 541-7534, or e-mailing [emf-rapid@niehs.nih.gov](mailto:emf-rapid@niehs.nih.gov) To order by fax: (919) 541-0144. Or write EMF-RAPID Program, NIEHS PO Box 12233, Mail drop EC-16, Research Triangle Park, NC 27709.

# # #

The URL for this press release is: <http://www.niehs.nih.gov/oc/news/emffin.htm>

[Press Releases](#)[News and Events](#)[Facts About Environment-Related Diseases and Health Risks](#)

Contact: **WebCenter** ([webcenter@niehs.nih.gov](mailto:webcenter@niehs.nih.gov))

[Credits and Tools](#) / [Disclaimer](#)

Last revision: Mon, 30 Jul 2001 20:12:10 GMT

Search  
NIEHS  
Webspace

NIEHS  
Home  
Page

NIH  
Home  
Page